

## **REMARKS**

Claims 1 and 3-21 are now pending in the application. Claim 2 has been cancelled herein. Claims 1, 7, 11, 12, 17 and 18 have been amended herein. No new matter has been added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## **DRAWINGS**

The drawings stand objected to for certain informalities. Applicant has attached revised drawings for the Examiner's approval. In the "Replacement Sheets", Figures 3A-C, 4 and 5A-B have been amended to replace reference indicia "31" with reference indicia "32" to properly reflect that the existing lead line indicates the first portion 32 of the display area 28 in which information from the non-certified source 30 is displayed. Support for this change can be found at least in Figure 1 and paragraphs [0026-0029] of the originally filed specification. Furthermore, original reference indicia "32" in Figures 3A-C has been changed to reference indicia "34" to properly reflect that the existing lead line indicates the second portion 34 of display area 28 that cannot display the information from the non-certified source 30. Support for this change can be found at least in paragraph [0026]. Finally, in Figures 1, 3A-C, 4 and 5A-B, an additional lead line has been added to each reference indicia "28" so that reference indicia "28" is now connected via lead lines to both first and second portions 32, 34 to more thoroughly indicate that both portions 32 and 34 are part of the entire display area designated by reference indicia "28." Support for this change can be found at least within paragraphs [0023 and 0025-0029]. No new matter has been added. It is believed that the corrections to the drawings to properly indicate

various features with the correct indicia now renders the objections moot. Accordingly, approval of the drawing changes and withdrawal of the instant objections are requested.

#### **SPECIFICATION**

The specification stands objected to for certain informalities. The specification has been amended herein according to the Examiner's suggestions. Thus, it is respectfully submitted that the objection is now moot and withdrawal of the instant objection is requested.

#### **CLAIM OBJECTION**

Claim 12 stands objected to because of an informality. Claim 12 has been amended herein according to the Examiner's suggestion. Thus, it is respectfully submitted that the objection is now rendered moot and withdrawal of the instant objection is requested.

#### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1 and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by McElreath (U.S. Pat. No. 6,401,013). This rejection is respectfully traversed. Notwithstanding, claim 1 has been amended herein to include the subject matter of claim 2. With claim 1 including this additional subject matter, which was not rejected as being anticipated by the McElreath reference, it is respectfully submitted that claim 1 is not anticipated and patentable over the McElreath reference. Accordingly, withdrawal of the instant rejection is requested.

Referring to claim 17, the claim has been amended and now calls for "limiting space on the certified flight deck display . . . so that an entire display area cannot be used to display the information." It is respectfully submitted that the McElreath

reference does not disclose the subject matter of claim 17. Rather, the McElreath reference states that the display of information normally displayed on the cockpit display can be terminated and the commencement of a display of information from laptop PC commenced or the use of split screens showing both information from a laptop PC and onboard FAA controlled equipment. See at least column 4, lines 12-21 of the McElreath reference. The McElreath reference, however, does not disclose that the space on the display is limited such that an entire display area cannot be used to display the information. Accordingly, it is respectfully submitted that claim 17 is not anticipated by the McElreath reference. Accordingly, withdrawal of the instant rejection is requested.

**REJECTION UNDER 35 U.S.C. § 103**

Claims 2-8, 12-16 and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McElreath, as applied to claims 1 and 17, and further in view of Doll et al. (EP Pat. No. 429,387, hereinafter Doll). This rejection is respectfully traversed.

Referring now to claim 1, claim 1 has been amended to include the subject matter of claim 2. Accordingly, claim 1 now calls for "partitioning the display area so that at least a portion of the display area cannot display the information from the non-certified source." Similarly, claim 17 calls for "limiting space on the certified flight deck display . . . so that an entire display area cannot be used to display the information." It is respectfully submitted that this subject matter is nonobvious and patentable over the prior art of record.

In the Office Action, the Doll reference is relied upon for teaching partitioning of a display area so that at least a portion of the display area cannot display the information from the non-certified source. The Office Action then combines that with the McElreath

reference and states that the motivation to make such a combination would be as a security measure to ensure that the use of non-certified sources of information will not corrupt any avionics equipment which is onboard the aircraft and certified by the FAA. It is respectfully submitted, however, that neither reference is concerned with application spoofing, that such motivation is not present and that one skilled in the art would not be motivated to combine the references as suggested. Rather, the Doll reference is concerned about protecting the veracity or truthfulness of the data that is being displayed or printed by limiting who can access the secured areas of the document or display. Additionally, the McElreath reference is concerned with assuring that the use of the laptop PC will not corrupt any avionics equipment which is onboard and under FAA control. To this end, the McElreath reference states it is commonly employed in FAA-certified avionics systems to separate and isolate functions of varying levels of flight criticality. In other words, McElreath is concerned with protecting the avionics equipment. Claims 2 and 17, however, are not concerned with protecting the avionics equipment nor with the veracity of the data that is displayed from a non-certified source. Rather, the claims are aimed at ensuring that non-certified sources of data presented directly to the flight crew cannot impersonate certified sources, thus confusing or misleading the crew (i.e., avoidance of application spoofing). The mere fact that the display is partitioned so that the non-certified source cannot be displayed over an entire area provides indication to the flight crew that the source of the data, even if external to the airplane, is uncertified so that it serves as notice to the flight crew that the display is invalid, rendering an attempt to use such a means to mislead the crew ineffective. Thus, it is respectfully submitted that because the claims are not concerned with the

integrity or corruption of the avionics equipment nor the veracity of the data being displayed from the non-certified source, there is no motivation to combine these references as suggested in the Office Action. Claims 3-8 and 18-20 all depend from one of claims 1 and 17 and, therefore, for at least the reasons stated above with reference to claims 1 and 17 are also nonobvious and patentable over the prior art of record. Accordingly, withdrawal of the instant rejections is requested.

Referring now to claim 3, the claim calls for "providing the non-certified source with a false indication of the size of the display area." Similarly, claim 19 calls for "providing the non-certified source with a false indication of the size of the display area." It is respectfully submitted that this subject matter is nonobvious and patentable over the prior art of record.

In the Office Action, the Doll reference is relied upon as teaching the providing the non-certified source with a false indication of the size of the display area. It is respectfully submitted, however, that this is not what the Doll reference teaches. Rather, the Doll reference teaches defining a user printing area (UPA) within the bounded medium or valid printing area (VPA) and inhibiting the display of data from the non-certified source on the bounded medium. Specifically, the Doll reference teaches that the dimensions of the UPA are specified by defining the X- and Y-coordinates of an origin in inches or millimeters measured from a predetermined origin of the paper or medium, usually the upper left corner. The space or area itself is then defined by offsets given as the X length and Y length values. Alternatively, the area can be defined by a second pair of values that define the coordinates of the diagonally opposite corner of the area relative to the origin. See at least column 5, line 57 - column 6, line 9 of the

Doll reference. The defining of the UPA in this manner is not the same as nor does it provide motivation to provide a false indication of the size of the display area. In fact, the Doll reference does not provide the non-certified source of the data with any information regarding the size of the display area. Rather, the Doll reference merely controls the printing area with the defined user area command that is issued either by the print controller 203 or the combiner 207. Nowhere in the Doll reference is a false indication of the size of the display area provided to the non-certified source. Accordingly, for at least these reasons it is respectfully submitted that claims 3 and 19 are nonobvious and patentable over the prior art of record. Claims 4-6 all depend from claim 3 and, therefore, for at least the same reasons stated above with reference to claim 3 are also nonobvious and patentable over the prior art of record. Accordingly, withdrawal of the instant rejection is requested.

Referring now to claim 8, the claim calls for "displaying the information on the display area in front of the certified display." Similarly, claim 20 calls for "displaying the information from the non-certified source on the display area in front of the certified display." It is respectfully submitted that the subject matter of claims 8 and 20 is nonobvious and patentable over the prior art of record.

In the Office Action, the Doll reference is relied upon as teaching the displaying of the non-secure information from the certified information so that the non-secure information is visible on the display and at least a portion of the secure information is visible on the display. The Doll reference, however, does not specifically teach nor suggest the subject matter of claims 8 and 20. Rather, the Doll reference teaches having a secured area which is within the valid printing area (VPA) and outside of the

user printing area (UPA). See at least column 3, lines 2-14 of the Doll reference. The Doll reference then further goes on to state the controlling of who can print within the VPA and UPA. Specifically, authorized users can control the display in the secure area (the VPA outside of the UPA) with only authorized users being able to print outside of the UPA while any user can print within the UPA. See at least column 3, lines 29-33 and column 5, lines 1-3 of the Doll reference. The controlling of access to the secured area so that only authorized users can control what is printed there is not the same as nor even remotely similar to placing the non-secure information in front of the certified information as called for in the claims. In other words, while access to the secured area is restricted, that restriction is not at all related to the placing of the non-secured area in front of the certified information. Rather, it is merely restricting information to various areas of the valid printing area to ensure the veracity of information in the secured area but has nothing to do with the stacking or positioning of one set of data on top of or in front of another set of data as called for. Accordingly, for at least these additional reasons it is respectfully submitted that the subject matter of claims 8 and 20 is nonobvious and patentable over the prior art of record and withdrawal of the instant rejection is requested.

Referring now to claim 12, the claim calls for “establishing rules that dictate when the avionics display can display the information.” (emphasis added) In rejecting claim 12, the Office Action relies upon the Doll reference as teaching the establishing of rules that dictate when the display can display information from the non-secure source (only when information receives a special authorization indication, can it be displayed in the secure outer display area). It is respectfully submitted, however, this is not what the

Doll reference teaches. Rather, the Doll reference teaches that any user can print to the UPA while only authorized users can control the display in the secure area and print outside of the UPA. See at least column 3, lines 29-33 and column 5, lines 1-3 of the Doll reference. Thus, the Doll reference specifies who can print and where they can print in the display area. The Doll reference is not at all concerned about rules that govern when in the temporal sense the avionics display can display the information from the non-certified source as called for in claim 12. Accordingly, with the Doll reference being completely unconcerned with rules that establish when a display can display information from a non-certified source it is respectfully submitted that the subject matter of claim 12 is nonobvious and patentable over the prior art of record. Claims 13-16 all depend from claim 12 and, therefore, for at least the same reasons stated above with reference to claim 12 are also nonobvious and patentable over the prior art of record. Accordingly, withdrawal of the instant rejection is requested.

Furthermore, referring now to claim 14, the claim calls for "identifying periods of operation of an aircraft when an operator of the aircraft should not be allowed to access the information." In rejecting this claim, the Office Action relies upon the McElreath reference as teaching periods of operation of an aircraft when the operated aircraft should not be allowed to access the information (such as during takeoffs and landings) and references column 1, lines 35-40 of the McElreath reference. It is respectfully submitted, however, that this is not what the McElreath reference discloses and that the subject matter of claim 14 is not taught nor suggested by the McElreath reference. Rather, the McElreath reference teaches the use of a laptop computer or similar device to display information on an avionics display. The McElreath reference further states



that laptops are often required to be shut down during takeoffs, approaches and landings because of the often-high levels of electromagnetic interference that they are known to cause. See column 1, lines 35-41 of the McElreath reference. Thus, the McElreath reference specifically teaches there are periods of operation of an aircraft when a laptop computer is not to be utilized. The identifying periods of operation when a laptop computer or other data sources should not be utilized is not the same as nor even remotely related to the identifying periods of operation when an operator of an aircraft should not be allowed to access the information. The limiting of the use of specific hardware during periods of flight has no bearing whatsoever on the accessing of information from a non-certified source. Accordingly, it is respectfully submitted that for at least this additional reason claim 14 is nonobvious and patentable over the prior art of record and withdrawal of the instant rejection is requested.

Referring now to claim 16, the claim calls for "terminating a data connection . . . so that the avionics display does not receive information from the non-certified source." In rejecting claim 16, the Office Action relies upon the McElreath reference as teaching the terminating of a data connection between the avionics display and the non-certified source and references column 4, lines 2-21 and column 6, lines 13-45 of the McElreath reference. However, Applicant is unable to locate any disclosure, teaching or suggestion in the McElreath reference of terminating a data connection. The passages cited within the McElreath reference merely discuss that the information normally displayed on the screen may be supplemented or replaced by information from another source, but nowhere does it discuss terminating a data connection between the avionics display and the non-certified source of information. Accordingly, with the prior art

lacking a teaching, suggestion or motivation to arrive at the subject matter of claim 16, it is respectfully submitted that for at least this additional reason claim 16 is patentable and withdrawal of the instant rejection is requested.

Claims 9-11 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McElreath, as applied to claims 1 and 17, and further in view of Oran et al. (U.S. Pat. No. 5,757,371, hereinafter Oran). This rejection is respectfully traversed.

Claims 1 and 17 are patentable over the prior art of record for at least the reasons stated above. It is respectfully submitted that the Oran reference does not disclose or teach subject matter that would render claims 1 and 17 nonpatentable. Claims 9-11 and 21 all depend from one of claims 1 and 17 and, therefore, for at least these same reasons as stated above with reference to claims 1 and 17 are also nonobvious and patentable over the prior art of record. Accordingly, withdrawal of the instant rejection is requested.

Furthermore, referring to claim 11, the claim calls for "superimposing the visual indicator in front of the information being displayed so that the visual indicator is always visible when displaying the information regardless of a location within the display area in which the information is being displayed." It is respectfully submitted that the subject matter of claim 11 is not taught, suggested nor disclosed by the Oran reference. Rather, the Oran reference discloses and teaches a task bar that can be made to always be on top of the other displays (components). The task bar, however, is limited to being anchored at the edges of the video display. See at least column 7, lines 55-56 of the Oran reference. Attaching the task bar at the edges will not allow the task bar to

be superimposed in front of the information being displayed regardless of the location within the display area in which the information is being displayed. Accordingly, for at least this additional reason it is respectfully submitted that the subject matter of claim 11 is nonobvious and patentable over the prior art and withdrawal of the instant rejection is requested.

#### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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